

Journal
of the
Royal Society of Western Australia

Vol. 42

Part 2

3.—A New and Distinctive Species of *Eriachne* R. Br. (Gramineae) from
Western Australia

By M. Lazarides*

Manuscript received—24th February, 1959

A new species of *Eriachne* R. Br. from the Kimberley district of Western Australia is described and illustrated. The prolific branching of the culms from the upper nodes is a unique characteristic within the genus. Its closest affinities are with *Eriachne filiformis* Hartley.

Eriachne fastigiata M. Lazarides sp. nov.

Holotype.—Near Clifton Creek, 2.5 miles N.W. of Glenroy Meatworks, M. Lazarides 5142, 22.iv.1955, Fig. 1.

Gramen perenne breviter vivens vel annuum, laxe caespitosum, radicibus fibrosis et innovationibus intravaginalibus. *Culmi* nonnulli, erecti vel obliqui, 27-38 cm alti, ramosi, 2-4-nodosi, striati, glabri vel pilis basi tuberculatis, brevibus, rigidis, laeves vel scaberuli tuberculis paucis dispersis, nodis superioribus geniculati et prominenter fastigiati, inferiores filares et teretes, superiores gracillimi et admodum compressi; internodia inaequalia, basale distincte elongatum, superiora gradatim multo breviora, internodium floriferum elongatum; nodi glabri. *Folia* plerumque basalia, brevia, hispida; *foliorum vaginae* internodiis breviores, dense hispidae pilis basi tuberculatis, patentibus, prominenter striatae, uno margine hyalinae et glabrae, basales arcte imbricatae, superiores admodum laxae; ligula ciliata pilis circa 1 mm longis; collum glabrum. *Laminae* lanceolatae, acuminatae, 1.5-2.5 cm longae, 1.5-3 mm latae, planae (rare admodum incurvae), striis scaberulae, rigide erectae vel admodum recurvae, subtus et marginibus incrassatis dense hispidae pilis longis, patentibus, basi tuberculatis, supra puberulae; prophylla nodis superioribus nonnulla, membranacea, lanceolata, acuminata, marginibus late hyalinis, carinis 2 et nervis nonnullis, carinis plerumque scaberula. *Panicula* 3-4.5 cm longa, 2 mm lata, prominenter exserta, spiciformis, gracilis, erecta, linearis; rhachis filiformis, plana vel angularis, glabra, laevis vel admodum scaberula; rami pauci, filiformes, glabri, laeves, adpressi ad rhachem, usque ad 7 mm longi, breviores paniculae apicem versus, omnes 2-3 (plerumque 2) spiculis; pedicelli graciles, firme erecti, glabri,

laeves, admodum incrassati apicem versus, longitudine inaequales, terminales 3.5-4.5 mm longi, laterales 1-1.5 mm longi, apicem paniculae versus breviores (< 1 mm longi). *Spiculae* 3-4 mm longae, apice 1-2 mm latae, lateraliter compressae, adpressae ad et continuae (nonnunquam admodum contiguae) secundum rhachem, plerumque hiantes et tunc cuneatae, nonnunquam ellipticae et admodum acuminatae, maturitate pallido-flavae. *Anthoecia* 2, bisexualia, plano-convexa. *Glumae* persistentes, longitudine sub-aequales, spicula paulum breviores, membranaceae ad scariosae, glabrae, laeves, ellipticae, obtusae, arcte 5-7-nervis, marginibus late hyalinis. *Rhachilla* supra glumas et inter anthoecia disarticulans. *Lemmata* spiculam aequantia, elliptico-ovata (explanata), acuminata, scariosa, 7-nerva, dimidio inferiori dense pubescentia pilis appressis, albis, apicem versus glabra et scaberula. *Paleae* lemmatibus longitudine et textura similes, obtuse 2-carinatae, enervi, apice minute bifidae vel integrae, ± planae et dense pubescentes inter carinas pilis appressis albis brevibus (nonnunquam apicem versus admodum glabrae); carinae similiter pubescentes, alis late hyalinis glabris laevibus, paulum incurvatis et caryopsidem amplectantibus. *Stamina* 3; antherae 2 mm longae, anguste oblongae. *Ovarium* glabrum; stigma plumosum, purpureum. *Caryopsis* 2-2.5 mm longa, oblongo-elliptica, plano-convexa, obtusa vel mucronata, ventri canaliculati, brunneo-fusca.

Annual or short-lived perennial forming small, loose tufts with fibrous roots and intravaginal innovations. *Culms* several, erect or oblique, 27-38 cm high, branched, 2-4 noded, striate, smooth or sparsely tubercled, glabrous or with few scattered tubercle-based short stiff hairs, geniculate and prominently fastigiata at the upper nodes; the lower internodes wiry and terete, the upper very slender and somewhat compressed; internodes unequal, the basal one distinctly elongated, becoming much shorter upwards except the elongated uppermost; nodes glabrous. *Leaves* mostly basal, short, hispid; *sheaths* shorter than their internodes, prominently striate, densely hispid with spreading tubercle-based hairs, hyaline and glabrous on

* Division of Land Research and Regional Survey, C.S.I.R.O., Canberra, A.C.T., Australia

one margin, the basal sheaths imbricate and tight, the upper rather loose; ligule ciliate with hairs about 1 mm long; collar glabrous; *blades* 1.5-2.5 cm long, 1.5-3 mm wide, lanceolate, acuminate, striate, flat (rarely somewhat incurved), scaberulous on the striations, rigidly erect or somewhat recurved, densely hispid with long spreading tubercle-based hairs on the under surface and thickened margins, puberulous on the upper surface; prophylla several from the upper nodes, membranous, lanceolate, acuminate, with broadly hyaline margins, 2-keeled and several-nerved, usually scaberulous on the keels. *Panicle* 3-4.5 cm long, 2 mm wide, spike-like, slender, erect, linear, prominently exerted; rhachis filiform, flat or angular, glabrous, smooth or somewhat scaberulous; branches few, filiform, glabrous, smooth, adpressed to the rhachis, up to 7 mm long, shorter towards the apex of the panicle, each with 2-3 (usually 2) spikelets; pedicels slender, glabrous, smooth, somewhat thickened towards the apex, unequal in length, the terminals 3.5-4.5 mm long, the laterals 1-1.5 mm long, shorter (less than 1 mm long) towards the apex of the panicle. *Spikelets* 3-4 mm long, 1-2 mm wide (at the apex), laterally compressed, adpressed to and continuous (sometimes somewhat contiguous) along the rhachis, usually gaping and then cuneate, sometimes elliptic and somewhat acuminate, pallid-yellow at maturity. *Florets* 2, bisexual, plano-convex. *Glumes* persistent, sub-equal in length, slightly shorter than the spikelet, membranous to scarious, elliptic, obtuse, glabrous, smooth, closely 5-7-nerved, with broadly hyaline margins. Rhachilla disarticulating above the glumes and between the florets. *Lemmas* as long as the spikelet, scarious, elliptic-ovate (flattened), acuminate, unawned, 7-nerved, not sulcate, densely pubescent with appressed white hairs below the middle, glabrous and scaberulous towards the apex. *Paleas* similar to the lemmas in length and texture,

obtusely 2-keeled, nerveless, minutely bifid or entire, \pm flat and densely pubescent with short white appressed hairs between the keels (sometimes somewhat glabrous towards the apex), the keels similarly pubescent, with broadly hyaline glabrous smooth wings, the wings slightly incurved and embracing the grain. *Stamens* 3; anthers 2 mm long, narrowly oblong. *Ovary* glabrous; stigma plumose, purple. *Caryopsis* 2-2.25 mm long, oblong-elliptic, plano-convex, obtuse or mucronate, channelled on the ventral surface, dark-brown.

Western Australia: Northern Province.—Near Clifton Creek, 2.5 miles N.W. of Glenroy Meatworks, *M. Lazarides* 5142 (HOLOTYPE) Fig. 1 and 5142A, 22.iv. 1955 (PARATYPE) Plate 1. The holotype and two sheets of the paratype are in the C.S.I.R.O. herbarium, Canberra, A.C.T. Fragments of the paratype will be distributed to the State Herbarium of Western Australia, Perth for permanent retention.

This species is unique within the genus by virtue of its densely branching habit from the upper nodes (to which its name refers), its consistently elongated basal internode, and to a lesser extent, its spiciform, linear, very slender panicle. The structure of its panicle, however, approaches that of *Eriachne filiformis* Hartley.

As compared with the paratype, the holotype is a shorter (about 30 cm high), older plant on which biennial inflorescences are predominant. The paratype, on the other hand, is about 38 cm high, possesses fewer innovations and still retains the remnants of its annual panicles.

The species was observed at its type locality and also 10 miles N.W. of Glenroy Meatworks as a common associate of *Melaleuca minutifolia* F. Muell., *Plectrachne pungens* (R. Br.) C. E. Hubbard, and *Sorghum australiense* Garber & Snyder growing in skeletal, stony, shaley areas.

The species is grazed to some extent. It was locally recognised as "windy grass".



PLATE 1

Eriachne fastigiata sp. nov., one sheet of paratype. (Photograph: C. L. Leslie.)

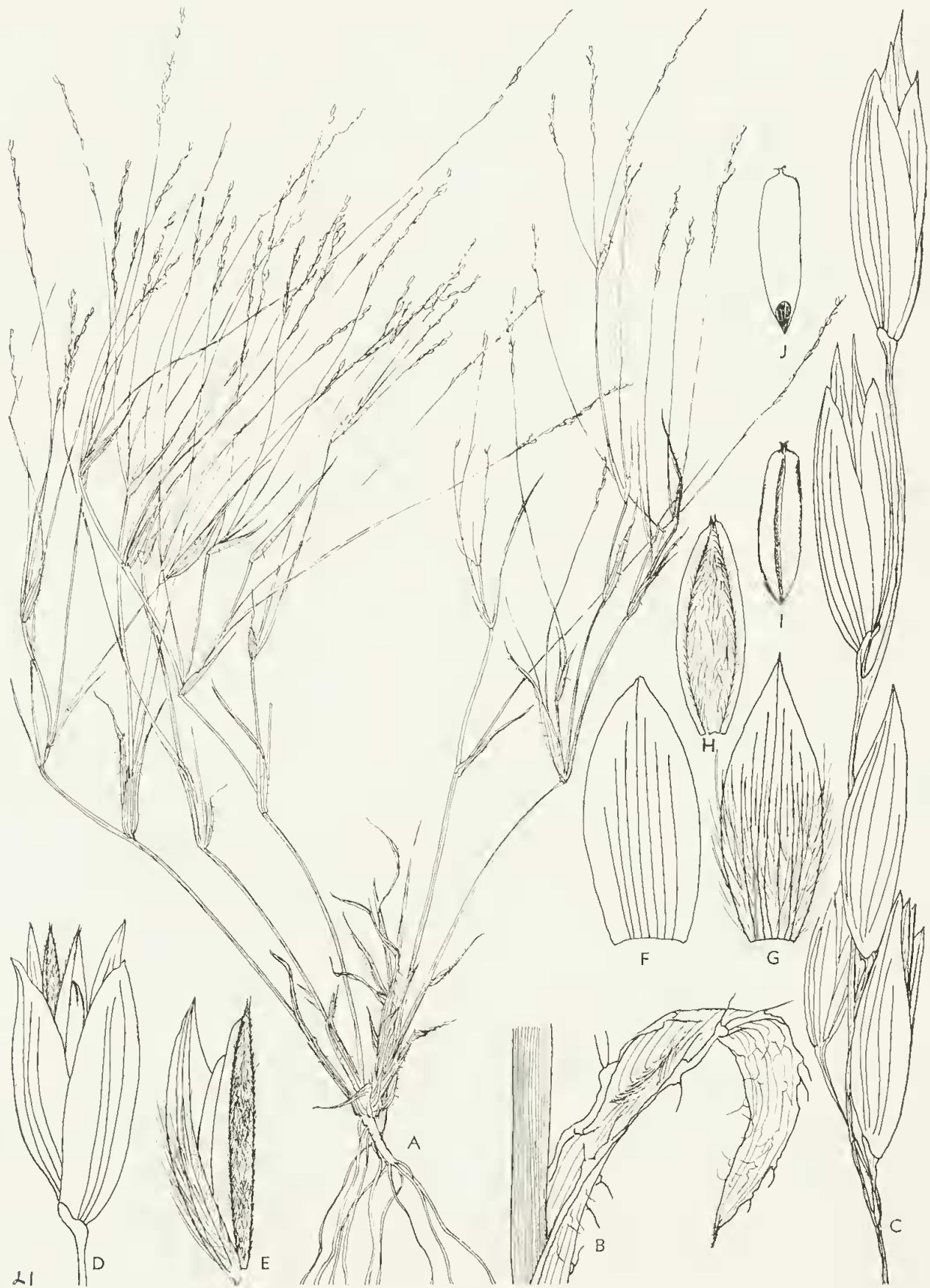


Fig. 1.—*Eriachne fastigiata* sp. nov., from holotype.

A, plant x $\frac{1}{2}$. B, portion of culm and leaf x 10. C, panicle x 10. D, spikelet x 10. E, floret x 10. F, glume x 10. G, lemma x 10. H, palea x 10. I, J, caryopsis x 10.